

Application No. 09/486,341
Response dated January 14, 2004
Reply to Office Action of October 14, 2003

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (canceled)

Claim 2 (canceled)

Claim 3 (canceled)

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (canceled)

Claim 10 (canceled)

Claim 11 (currently amended): A financial transactions modeling apparatus for modeling a transaction sequence settled by settling financial transactions in a predetermined transaction period, comprising:

(1) one or more unit transaction modeling means comprising:

(i) unit transaction information storage means, provided at each of a receipt side and a payment side of the financial transactions for one or more unit transaction period ~~obtained by dividing into which~~ the predetermined transaction period for each receipt or payment is divided, for individually storing information about a unit transaction, and

(ii) current price evaluation operation means for evaluating a current price of the financial transactions in the unit transaction period; and

(2) transaction sequence modeling means comprising

(i) reference information storage means for holding a reference information group for reference to said unit transaction modeling means corresponding to each of ~~[[a]]~~ the receipt side and ~~[[a]]~~ the payment side of the financial transactions, and

(ii) transaction sequence characteristic computation means for sequentially referring to said unit transaction modeling means from the reference information group in each of the receipt side and the payment side of the financial transactions at a predetermined instruction, performing the current price evaluation operation means and

obtaining operation results, and computing a characteristic of the transaction sequence based on each of the operation results.

Claim 12 (previously presented): The apparatus according to claim 11, wherein said predetermined transaction period is only a predetermined point in time.

Claim 13 (previously presented): The apparatus according to claim 11, wherein said financial transactions are financial goods other than a currency.

61 Claim 14 (original): The apparatus according to claim 11, wherein said unit transaction modeling means is implemented as a list structure.

Claim 15 (currently amended): The apparatus according to claim 11, wherein:

said unit transaction modeling means is a module for holding as a class member a parameter for use in a current price evaluating operation performed by said unit transaction information storage means in the unit transaction period, holding the current price evaluation operation means ~~as a method~~, and operating an instance of a predetermined class in an object-oriented concept; and

said transaction sequence modeling means is a module for holding as a list member a reference information group in each of ~~[[a]]the~~ receipt side and ~~[[a]]the~~ payment side of the financial transactions, holding the transaction sequence characteristic computation means ~~as a virtual method~~, and operating an instance of a predetermined container class in the object-oriented concept.

Claim 16 (currently amended): The apparatus according to claim 11, wherein

[[a]] the current price evaluation operation means of said unit transaction modeling means performs a current price evaluating operation based on a future value index computed based on any of three types of indices of an interest, an earning rate, and a price in the unit transaction period corresponding to said unit transaction modeling means, and an evaluation value independent of any indices of the interest, the earning ~~rate~~^{rate}, and the price.

Claim 17 (currently amended): The apparatus according to claim 16, wherein

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[[a]] the current price evaluation operation means of said unit transaction modeling means comprises discount rate multiplication means obtains as a current price evaluating operation result a current value by multiplying a current price evaluating operation performed by the current price evaluation operation means by a predetermined discount rate.

Claim 18 (currently amended): The apparatus according to claim 11, further comprising:

user interface means for computing one or more unit transaction periods ~~by dividing~~ into which the predetermined transaction period for each receipt or payment based on a setting of date information is divided, generating the unit transaction modeling means for each computed unit transaction period on each of [[a]] the receipt side and [[a]] the payment side of the financial transactions, and generating a reference information group in said transaction sequence modeling means corresponding to each of the receipt side and the payment side.

Claim 19 (original): The apparatus according to claim 11, further comprising:

user interface means for changing a parameter for financial transactions to be modeled for each unit transaction modeling means, and issuing a predetermined instruction in response to the change.

Claim 20 (currently amended): The apparatus ~~or a financial transactions modeling apparatus~~ according to claim 11, further comprising:

financial characteristic computation means for computing financial characteristics in each current price evaluating operation performed by said current price evaluation operation means, and providing each current price evaluation operation means with the financial characteristics.

b1 Claim 21 (currently amended): The apparatus according to claim 20, wherein:

said financial characteristic computation means is a module for modeling the financial characteristics, and operating an instance of a predetermined class in an object-oriented concept; and

said current price evaluation operation means contains reference information, contained in the instance of the predetermined class, ~~for reference to a predetermined method~~ for computing the financial characteristics.

Claim 22 (original): The apparatus according to claim 20, wherein:

said financial characteristic computation means comprises:

a plurality of single financial characteristic computation means for computing a plurality of single financial characteristics in each current price evaluating operation performed by said current price evaluation operation means;

virtual financial characteristic computation means for computing a new virtual financial

characteristic by combining said plurality of single financial characteristics, and providing said virtual financial characteristic for said current price evaluation operation means.

Claim 23 (currently amended): The apparatus according to claim 20, wherein

said single financial characteristic computation means is a module for modeling each unit financial characteristic, and operating each instance of a plurality of predetermined classes in the object-oriented concept;

said virtual financial characteristic computation means is a module for operating an instance of a predetermined super class inherited by the plurality of predetermined classes; and

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said current price evaluation operation means contains reference information, stored by the instance of the predetermined super class ~~for reference to a predetermined method~~ for computing the virtual financial characteristics.

Claim 24 (previously presented): The apparatus according to claim 20, wherein

said financial characteristics are data items obtained on a real time basis input through a network.

Claim 25 (original): The apparatus according to claim 20, further comprising:

financial characteristic definition means for defining the financial characteristics.

Claim 26 (canceled)

Claim 27 (canceled)

Claim 28 (canceled)

Claim 29 (canceled)

Claim 30 (canceled)

Claim 31 (canceled)

Claim 32 (canceled)

Claim 33 (canceled)

Claim 34 (canceled)

Claim 35 (canceled)

Claim 36 (canceled)

B 1 Claim 37 (currently amended): A computer-readable storage medium for storing a program used
and read by a computer for performing:

(ii) current price evaluation operation means for evaluating a current price of the financial transactions in the unit transaction period; and

(2) transaction sequence modeling means comprising

(i) reference information storage means for memorizing a reference information group corresponding to each of the receipt side and the payment side, the reference information group being provided for referring the unit transaction modeling means, and

(ii) transaction sequence characteristic computation means for sequentially referring to the unit transaction modeling means via the reference information group, to operate the current price evaluation operation means to produce operation results, wherein the operation results are used for producing a characteristic of a transaction sequence.

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Claim 40 (new): A computer-readable storage medium for storing a program used and read by a computer for performing:

(i) a unit transaction modeling function for evaluating a current price of financial transactions in a unit transaction period, wherein a predetermined transaction period is divided into the unit transaction period, wherein the unit transaction modeling function is respectively provided as to the unit transaction period in the predetermined transaction period, and wherein the unit transaction modeling function is provided at each of a receipt side and a payment side of the financial transactions; and

(ii) a transaction sequence modeling function for calculating a characteristic of the financial transaction, wherein the transaction sequence modeling function memorizes a reference information group, which is used for reference to the unit transaction modeling function, wherein the transaction sequence modeling function sequentially refers to the reference information group at the receipt side and the

one or more unit transaction modeling function, implemented for one or more unit transaction period ~~obtained by dividing into which~~ a predetermined transaction period for each receipt or payment on each of a receipt side and a payment side of financial transactions ~~is divided~~ ~~settled by settling the financial transactions in the predetermined transaction period~~, for performing a current price evaluating operation in the unit transaction period; and

b1 transaction sequence modeling function for holding a reference information group for reference to said unit transaction modeling function corresponding to each of a receipt side and a payment side of the financial transactions, sequentially referring to said unit transaction modeling function in the reference information group in each of the receipt side and the payment side of the financial transactions at a predetermined instruction, performing the current price evaluation operation, obtaining operation results, and computing a characteristic of the financial transactions based on each of the operation results.

Claim 38 (canceled)

Claim 39 (new): A financial transactions modeling apparatus for modeling a transaction sequence settled by settling financial transactions in a predetermined transaction period, comprising:

b2 (1) unit transaction modeling means comprising:

(i) unit transaction information storage means, provided at each of a receipt side and a payment side of the financial transactions, wherein the unit transaction information storage means stores a unit transaction period into which the predetermined transaction period is divided, and wherein the unit transaction information storage means stores information about a unit transaction, and

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B2 payment side, and wherein the transaction sequence modeling function obtains the current price via the reference information group, which are used for calculating a characteristic of the financial transaction.
